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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,899	03/19/2004	Wen-Chin Lin	67,200-1250	8183

7590 04/18/2005  
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EXAMINER

HA, NGUYEN T

ART UNIT PAPER NUMBER

2831

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/804,899

Applicant(s)

LIN ET AL.

Examiner

Nguyen T Ha

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0304.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group I, claims 1-6 in the reply filed on 2/22/2005 is acknowledged.

Applicant's election with traverse of group I, claims 1-6 in the reply filed on 2/22/2005 is acknowledged. The traversal is on the ground(s) that the searches for group I and II would be co-extensive. This is not found persuasive because the method of claims 7-20 would be classified in a different class than claims 1-6.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 6,441,419).

Regarding claim 1, Johnson et al. disclose a capacitor comprising:

- a substrate (not shown, column 5, lines 7-8);
- a first capacitor plate layer (42) formed over the substrate, the first capacitor plate layer comprising a horizontally separated (54) and interconnected first series of tines (figure 1);
- a second capacitor plate layer (46) separated from the first capacitor plate layer by a capacitor dielectric layer (44), the second capacitor plate layer comprising a horizontally separated (58) and interconnected second series of tines horizontally inter-digitally between the horizontally separated and interconnected first series of tines (figure 1) , wherein the capacitor dielectric layer is a single serpentine conformal dielectric layer sequentially (figure 1).

Johnson et al. disclose all the claimed limitations above, except for the method steps of forming:

- formed upon a top surface of a first tine;
- formed interposed between a first tine and a second tine;
- formed beneath a bottom surface of a second tine, and
- formed interposed between the second tine and an additional first tine.

However, the presence of process limitations in product claims, which product does not otherwise patentably distinguish over the prior art, cannot impart patentability

to the product. *Therefore, the limitations of the forming a top surface of a first tine, an interposed between a first tine and a second tine, formed beneath a bottom surface of a second tine, and formed interposed between the second tine and an additional first tine is a process limitations. In re Stephens 145 USPQ 656 (CCPA 1965).*

Regarding claim 2, Johnson et al. disclose the second series of tines is horizontally inter-digitally but not vertically inter-digitated with respect to the first series of tines (figure 1).

Regarding claim 6, Johnson et al. disclose the second capacitor plate also covers a series of top surfaces of the first series of tines (figure 1).

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 6,441,419) in view of Jones et al. (US 6,740,922).

Regarding claims 3 & 4, Johnson et al. disclose all the claimed limitations discussed above with respect to claim 1, except for the substrate is a semiconductor substrate or a ceramic substrate.

Jones et al. teach a semiconductor substrate (column 3, lines 22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the substrate of Jones et al. in Johnson et al., in order to suitable to use under high temperature.

Regarding claim 5, Jones et al. further teach the dielectric layer is formed to a thickness of from about 100 to 300 nm (column 4, lines 57-60 which is within the claimed range).

It is obvious to one having ordinary skill in the art at the time the invention was made to use the dielectric of Jones in Johnson et al., in order to increase the capacitance for the capacitor.

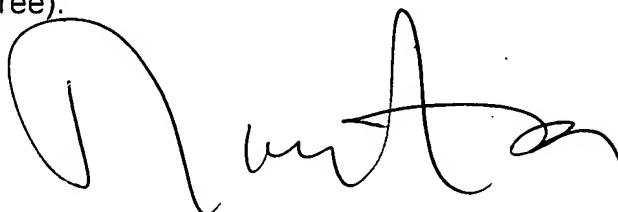
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Ha whose telephone number is 571-272-1974. The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Nguyen T. Ha**  
**April 13, 2005**

A handwritten signature in black ink, appearing to read 'N. Ha', is written over the bottom right portion of the text area.